

Blacknote®



DSA 150 Special

ITALIAN HI-TECH Digital Stereo Amplifier

Owner's Manual

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Congratulations

Thank you for having purchased a Blacknote® product.

Introduction



The Blacknote DSA is a complete line of Class D innovative digital Amplifiers

The DSA150 SPECIAL is a true 150watt superior Class D digital integrated amplifier designed to satisfy the most discriminating audio enthusiasts.

The DSA150 SPECIAL is able to deliver uncompromised sound quality with the typical great power and versatility of such innovative technology.

The DSA150 SPECIAL has a full digital Class D output stage powered by a traditional massive Dual-Mono I.E. handcrafted transformers. Such large power easily ensures a superb quality controls of the audio signal paths.

The DSA150 SPECIAL has the internal preamplifier and power amplifier stages perfectly separated can be singularly managed to set up, as per user needs, double passive amplification audio systems for premium quality & sound performance.

The preamplifier stage is controlled with a superior Double Mono Active Volume step-by-step resistor control system while the six different Line Inputs, three RCA and three XLR are powered thru electrical 24 Karat gold singularly incapsulated relays, guarantee a full isolated line silence with zero negative feedback & crosstalk.

A proprietary Blacknote design enables real “Flat Load Independent-Frequency Response” design which allows perfect matching with any (hi-end) audio speaker of the market. The FLI-FR system apart of keeping the frequency response stable independently of the speaker load enable a perfect linear response down to remarkable 1ohm matching.

Real 150 watt per channel are able to effectively drive almost all the home speakers of the market, besides the very low output noise & impedance of the Blacknote DSA150 SPECIAL amplifier joined with super wide bandwidth insure top class performance with level of accuracy very hard to reach with traditional amplifiers.

The DSA150 SPECIAL is fully remoted with a flat elegant handset allows a control deeply completes the unique features of one of the most innovative amplification system available today.

(Contents of Packaging)

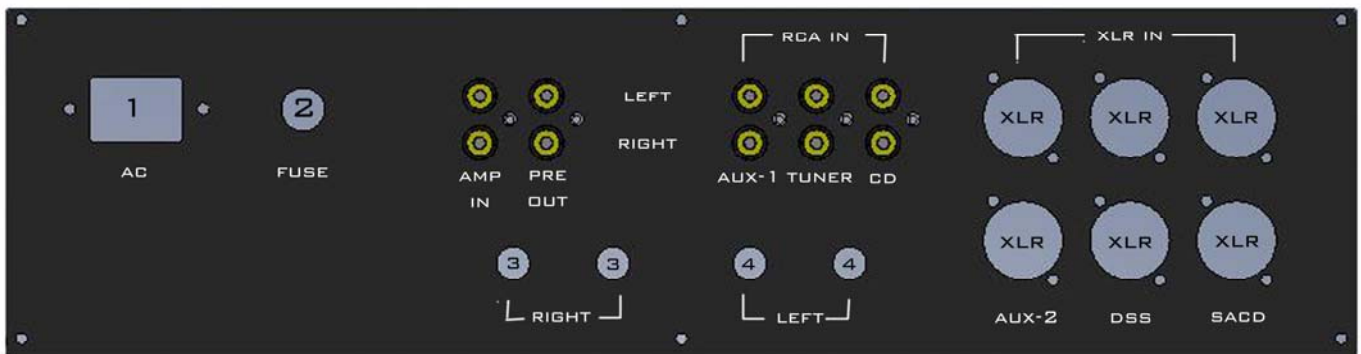
- DSA150 SPECIAL UNIT
- A DETACHABLE AC POWER CHORD
- REMOTE CONTROL
- INSTRUCTIONS AND WARRANTY CERTIFICATE.

(Set-Up Instructions)

This section describes how to install the DSA150 SPECIAL Digital Stereo Amplifier. The instructions are purely descriptive and necessarily generic. If you have any doubts or difficulties with this procedure please contact your local Blacknote distributor who will know how to assist you.

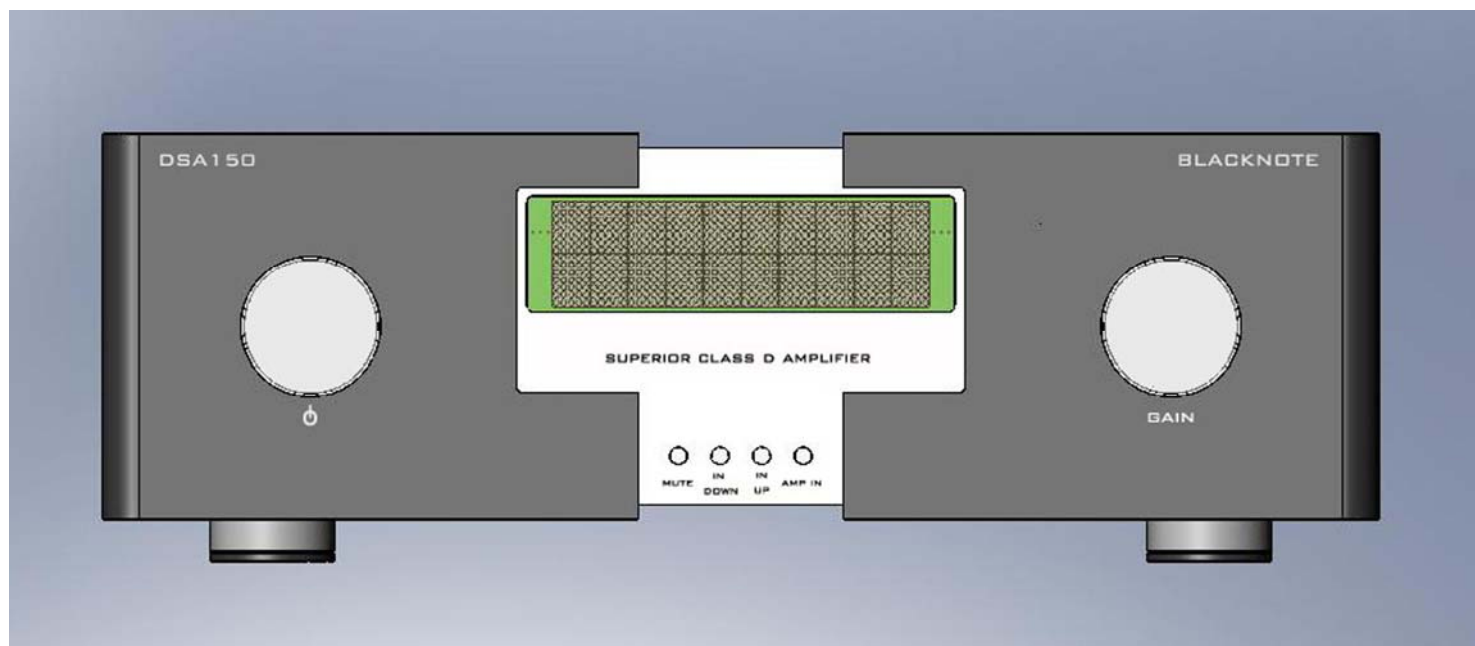
- Open all the cartons inside the main box and look that all the components listed in the "content section" are present.
- Carefully remove the DSA150 SPECIAL Digital Stereo Amplifier unit from the shipping box and foam.
- Connect the audio cable (not supplied) to the amplifier.
- Connect the AC chord supplied.

DSA150 SPECIAL back panel



- o **1)** IEC standard AC plug
- o **2)** Fuse
- o **3)** Speaker connector (Binding post) RIGHT Channel
- o **4)** Speaker connector (Binding post) LEFT Channel
- o **AMP IN** - it is the direct power amplifier input. The Power Amplifier Mode is particularly useful to have a passive double amplification or to hook directly a processor, sub-woofer, etc...
- o **PRE OUT** - it is the direct preamplifier variable output. The Preamplifier mode does not need to be activated. The PRE OUT connection on the back panel enable the variable output stage of the unit directly
- o **RCA IN** – Three unbalanced Line Inputs
- o **XLR IN** – Three balanced Line Inputs

(Front Panel)



Once the DSA150 SPECIAL has been correctly assembled and positioned on a solid shelf and fully wired the player is ready to play.

The DSA150 SPECIAL front Panel replies six basic function of the unit:

- ⏻ **ON OFF** - It turns the unit ON/OFF completely.
- **GAIN** - Volume Control & Balance control Pushing
- **MUTE** - Shut down the unit
- **IN DOWN** - Input selector scrolling
- **IN UP** - Input selector scrolling
- **AMP IN** - It enable the unit to work as Power Amplifier. The AMP IN option is not replied on the remote control and it completely disables the handset when selected.

AMP IN: The Power Amplifier Mode is particularly useful to have a passive double amplification or to hook directly a processor, sub-woofer, etc...

PRE OUT: The Preamplifier mode does not need to be activated. The PRE OUT connection on the back panel enable the variable output stage of the unit directly

(DSA DOUBLE MONO ACTIVE VOLUME CONTROL)

The Double Mono Active Volume Control system of this unit is made with a Blacknote proprietary designed developed with a Texas Instruments PGA2310/2320 devices feature fine resistors step-by-step DOUBLE MONO high end performance for superior resolution, lowest distortion and perfect channel balance.

The active preamp stage allows a +10dB gain for best resolution and perfect unit control; the volume control range is from [-90dB to +10dB] stepping 0.5dB finely managed by high precision 0.1% resistors.

Due to the Double Mono set-up the Blacknote active Volume Control features also a sonically ideal balance control solution. The Volume is conveniently lighted up on the DSA display to check it up on real time.

The quality of the Blacknote Double Mono Active Volume Control technology enable unsurpassed sonic performance for traditional passive audio potentiometer.

(DSA DOUBLE MONO ACTIVE BALANCE CONTROL)

The Blacknote Double Mono Active Volume Control allows also a high quality Balance control based on the same technology, it does not affect the performance of the amplifier even when a different level of db is required on the Left & Right channel.

The Balance can be controlled pushing and hold the volume knob then rotating the knob on the channel wanted.

The Balance can be controlled through the remote control also.

The Balance is kept in the memory of the amplifier after 5 seconds of the assignment.

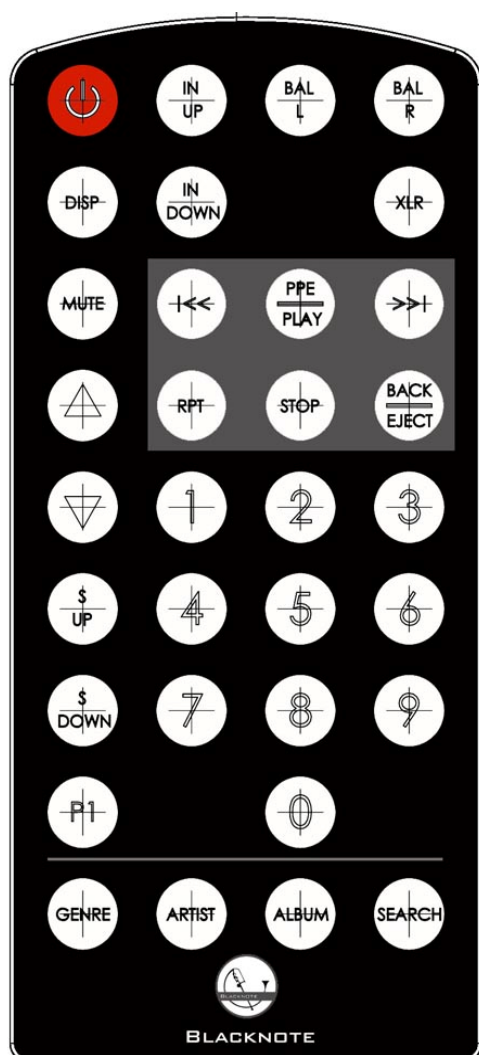
If the unit is set in Stand-By Mode thru the remote control specific button. The amplifier keeps partially ON, ready to work at its max audio performance when turned ON completely.

(SOFTWARE)

The Software of the DSA can be update at the local Blacknote® distributor only.

(REMOTE CONTROL)

The supplied remote control is the same of the Blacknote® Digital Player to integrate with one handset eventually the control of all the Blacknote unit.



STAND-BY MODE – It partially turns OFF the unit and resets the Volume to zero.

IN Up & IN Down – Input Selector

BAL L & BAL R – BALANCE – Balance Left & Right channel

XLR – Amplifier Input Selector deactivated

DISP – It turns ON/OFF the display

MUTE – MUTE – Muting Key

RPT – Digital Player configuration only

△ ▽ - VOLUME CONTROL – Up & Down Volume control

S Up & S Down – Service Applications only

P 1 – Changing Source Key

GENRE, ARTIST, ALBUM, SEARCH – Digital Player configuration only

0 to 9 – Digital Player configuration only

Technical Specifications

The following data describe the basic technical specifications of the DSA150 SPECIAL Digital Stereo Amplifier at the time of drafting this manual. The specifications are subject to modification without notice. The product complies with the requirements laid down in the EC regulations.

POWER OUTPUT:	2 X 150W Continuous Power at 8, 4, 2 & 1ohms 100% stability at 1ohm speaker load working
FREQUENCY RESPONSE:	10Hz – 50KHz @ +/- 3dB
THD (Total Harmonic Distortion):	<0.01% THD @ 20Hz-20KHz
RATIO SIGNAL/NOISE	>95dB
INPUT IMPEDANCE:	47Kohm
OUTPUT IMPEDANCE:	0,02ohm @ 1KHz
DYNAMIC POWER:	>350W IHF
DYNAMIC RANGE:	>120dB
DAMPING FACTOR:	>400
MAX OUPUT NOISE:	80uV
INPUT:	3 x RCA Single End Inputs 3 x XLR Balanced Inputs
INPUT SENSIVITY:	450mV RMS
SLEW RATE:	15Volt/μs
PREAMP OUTPUT STAGE:	True Separate stage – RCA OUT PINS
AMP IN STAGE:	True Separate stage - RCA IN PINS (disables the remote functions)
VOLUME COTROL:	Double Mono Active Volume Control
DISPLAY:	Switchable On/Off LED GIANT display
POWER ABSORBATION:	Min. <1watt – Max.500watt
DIMENSION:	430mm L x 145mm H x 390mm D (17" L x 5¾ " H x 15 ½ D)
WEIGHT:	23Kilos (51Lbs.)

NOTES: Flat Load Independent Frequency Response design allows perfect speaker matching and stable frequency response with all audio loudspeakers.

(Warranty Certificate)

The warranty certificate is enclosed separately and to be valid must be completed fill and returned to Blacknote® factory or the official distribution. In all countries where there is an official distribution network, the dealer must stamp the warranty certificate. In compliance with the laws in force, the dealer may modify the official Blacknote warranty certificate wholly or partially without notice and without further mention being made in this instruction manual.

Unit with the logo warranty label damaged or broken won't be covered by any warranty.

(Customer Service)

All BLACKNOTE® products are the result of meticulous technological research, and consequently their correct functioning is guaranteed. In spite of this it is possible that problems may emerge which non-specialist users cannot resolve. In this case, contact your local distributor who will advise you on how to resolve the problem.

Do not return any object directly to the factory or to the national distributor or without being authorized to do so. In such cases both BLACKNOTE® and the distribution agents operating within your territory decline responsibility of any kind.

Please Note: Descriptions and technical characteristics may vary in any moment without notice.

Warnings

1. **DO NOT SHORT THE UNIT WHEN TURNED ON**
2. Do not disassemble any part of the product.
3. Do not use any part of the product for other purposes.
4. For service and problems of any kind, contact qualified Blacknote personnel.
5. Protect the product from rain and humidity and keep away from heat sources, electric and electronic motors etc.
6. The power Chord supplied must be used only on this unit.
7. Blacknote® does not have responsibility for any improper use of this unit

(F.A.Q.)

QUESTION	DESCRIPTION	REASON/SOLUTION
Why the DSA can drive low impedance & efficiency loudspeakers?	<i>The DSA is designed around an innovative digital technology enable the Blacknote® amplifier to drive speaker down to 1ohm impedance without clipping troubles.</i>	The Technology of the DSA amplifier line is based around an innovative Flat Load Independent Frequency Response design allows perfect speaker matching and stable frequency response with all audio loudspeakers
Why the Double Mono Active Volume control is better than standard potentiometer solutions?		The insistence to have best possible performance let Blacknote lab design a resistance step-by-step potentiometer electronically regulated to achieve the best performance and the max convenience using it.
Why the AMP IN disables the remote control and it can be activated only from the front panel?	<i>Once the Power amplifier mode is activated the remote is totally disabled</i>	For security reason there is only a front panel switch can activate the Power Amplifier mode of the DSA amplifier